Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A metal making lance assembly comprising:

a barrel;

a tip attached to said barrel, said tip including at least one nozzle for discharging at least one of gaseous and particulate metal treatment material into a metal treatment vessel; and

a sensor feed tube carried by said barrel and adapted to accommodate passage of at least one disposable sensor, said sensor feed tube being separate from and isolated from fluid communication with said at least one nozzle.

2. (Original) The assembly of claim 1 further comprising means for loading said at least one disposable sensor into said sensor feed tube.

3. (Original) The assembly of claim 1 wherein said sensor feed tube is disposed exteriorly of said barrel.

4. (Original) The assembly of claim 1 wherein said sensor feed tube is disposed interiorly of said barrel.

5. (Original) The assembly of claim 1 wherein said sensor feed tube is parallel to a central longitudinal axis of the lance assembly.

6. (Original) The assembly of claim 5 wherein said sensor feed tube is coaxial with the central longitudinal axis of the lance assembly.

7. (Original) The assembly of claim 1 wherein said sensor feed tube is connected to said tip.

8. (Original) The assembly of claim 1 further comprising yieldable sensor gripping means for resisting inadvertent discharge of said at least one disposable sensor from the lance assembly during operation.

9. (Original) The assembly of claim 1 further comprising means for introducing a flow of pressurized gas into said sensor feed tube.

10. (Currently Amended) A metal making lance assembly comprising:

a barrel;

a tip attached to said barrel, said tip including at least one nozzle for discharging at least one of gaseous and particulate metal treatment material into a metal treatment vessel;

at least one disposable sensor for sensing at least one of a characteristic of a molten metal and an operating condition within a metal treatment vessel; and

a sensor feed tube carried by said barrel and adapted to accommodate passage of said at least one disposable sensor, said sensor feed tube being separate from and isolated from fluid communication with said at least one nozzle.

11. (Original) The assembly of claim 10 further comprising means for loading said at least one disposable sensor into said sensor feed tube.

12. (Original) The assembly of claim 10 wherein said sensor feed tube is disposed exteriorly of said barrel.

13. (Original) The assembly of claim 10 wherein said sensor feed tube is disposed interiorly of said barrel.

14. (Original) The assembly of claim 10 wherein said sensor feed tube is parallel to a central longitudinal axis of the lance assembly.

15. (Original) The assembly of claim 14 wherein said sensor feed tube is coaxial with the central longitudinal axis of the lance assembly.

16. (Original) The assembly of claim 10 wherein said sensor feed tube is connected to said tip.

17. (Original) The assembly of claim 10 further comprising yieldable sensor gripping means for resisting inadvertent discharge of disposable sensors from the lance assembly during operation.

18. (Original) The assembly of claim 10 further comprising means for introducing a flow of pressurized gas into said sensor feed tube.

19. (Original) The assembly of claim 10 wherein said at least one of a characteristic of metal being treated and an operating condition within a metal treatment vessel comprise a temperature of a metal bath, a concentration of one or more chemical constituents in a metal bath, a concentration of one or more chemical constituents in slag material above a metal bath, a concentration of one or more chemical constituents in a metal making vessel and a temperature of a metal making vessel.

20. (Original) The assembly of claim 10 further comprising a data signal receiver and wherein said at least one disposable sensor comprise a plurality of sensors that are stackable end-to-end whereby they form a continuous electronic circuit that transmits signals corresponding to data being sensed from adjacent said tip to said data signal receiver.

21. (Original) The assembly of claim 10 further comprising a data signal receiver and wherein said at least one disposable sensor is tethered by electrical cable means for transmitting signals corresponding to data being sensed from adjacent said tip to said data signal receiver.

22. (Original) The assembly of claim 21 wherein said at least one disposable sensor comprise a sensor portion and a connector portion, wherein said connector portion is connectable to an

electrical connector that is carried by and is in electrical communication with said electrical cable means.

23. (Original) The assembly of claim 10 further comprising a data signal receiver and wherein said at least one disposable sensor communicates wirelessly with said data signal receiver.